

Insights Image for “Rate of rise of total serum bilirubin in very low birth weight preterm infants”

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Sigrid Hahn, Christoph Bühner, Gerd Schmalisch, Boris Metze, Monika Berns*

Affiliation: Department of Neonatology, Charité - Universitätsmedizin Berlin, Berlin, Germany

Address correspondence to:

Dr. Monika Berns, Klinik für Neonatologie, Charité Universitätsmedizin Berlin, 13344 Berlin, Germany,

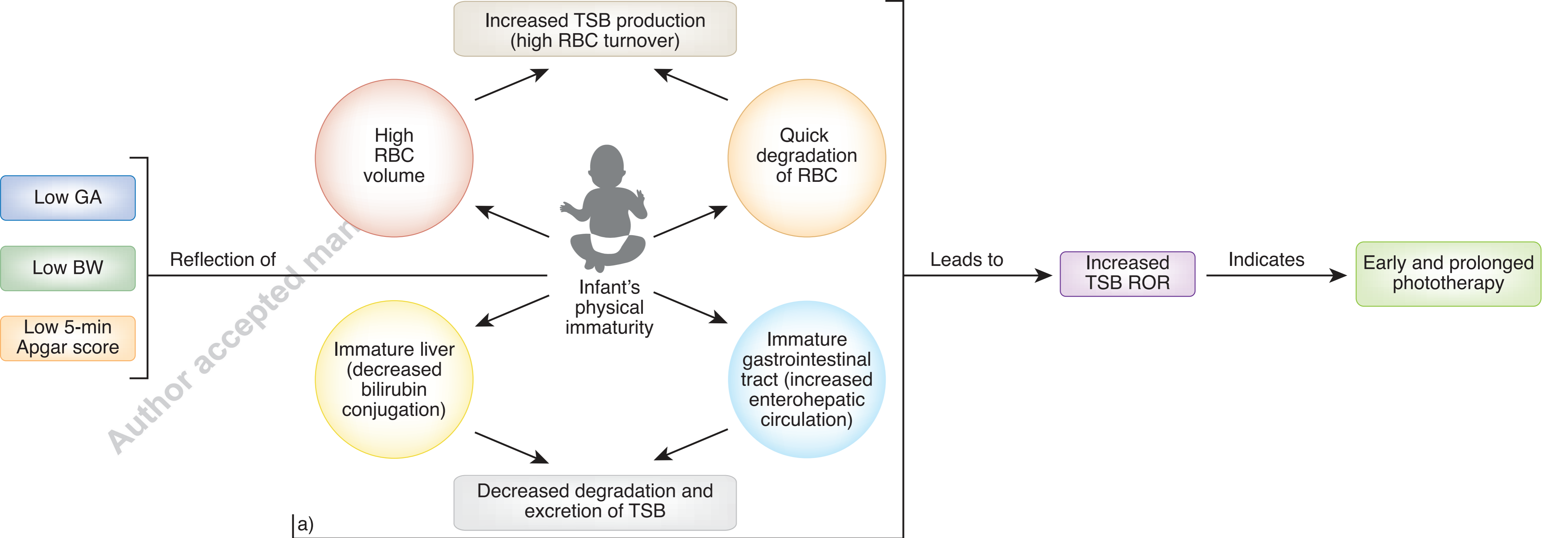
phone: +4930450566122, Fax: +4930450566922, monika.berns@charite.de

Pathway Figure 1 Hypothesized causal relation between the postnatal rate of rise of total serum bilirubin, associated risk factors as well as timing and duration of phototherapy in very low birth weight preterm infants. a) Aspects of bilirubin metabolism in physically immature infants according to Watchko, J. & Maisels, M. Jaundice in low birthweight infants: pathobiology and outcome. Arch Dis Child Fetal Neonatal Ed. 88, F455-F458 (2003). BW, birth weight; GA, gestational age; RBC, red blood cell; R_s , Spearman's rank coefficient; TSB, total serum bilirubin; TSB ROR, rate of rise of total serum bilirubin (mg/dL/h)

References:

Rate of rise of total serum bilirubin in very low birth weight preterm infants. Berns, et al. Pediatric Research, 2019.

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A low GA, a low BW and a low 5-min Apgar score are all together a reflection of an infant's physical immaturity, which is associated with an increased production as well as a decreased degradation and excretion of TSB, leading to an increased rise of postnatal TSB concentration.

Postnatal TSB ROR is an indicator for the age at initiation ($R_s = -0.687$; $p < 0.001$) as well as for the duration ($R_s = 0.444$; $p < 0.001$) of phototherapy in very low birth weight preterm infants.